

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/576,388
Source: JFWP
Date Processed by STIC: 5-1-06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/576,358

CRF Edit Date: 5-1-06
Edited by: ZQ

Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

Corrected the SEQ ID NO. Sequence numbers edited were:

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

Deleted: invalid beginning/end-of-file text ; page numbers

Inserted mandatory headings/numeric identifiers, specifically:

Moved responses to same line as heading/numeric identifier, specifically:

Other:



IFWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/576,358

DATE: 05/01/2006

TIME: 12:15:15

Input Set : A:\PTO.KD.txt
 Output Set: N:\CRF4\05012006\J576358.raw

5 <110> APPLICANT: Smith, Austin, Gerard
 6 Ying, Qi-Long
 7 Nichols, Jennifer
 10 <120> TITLE OF INVENTION: Improved Control Of ES Cell Self Renewal And Lineage Specification, And
 11 Medium Therefor
 14 <130> FILE REFERENCE: 09641.0011-00000
 C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/576,358
 18 <141> CURRENT FILING DATE: 2006-04-17
 21 <150> PRIOR APPLICATION NUMBER: GB 0324270.8
 22 <151> PRIOR FILING DATE: 2003-10-16
 24 <150> PRIOR APPLICATION NUMBER: GB 0324378.9
 25 <151> PRIOR FILING DATE: 2003-10-17
 27 <150> PRIOR APPLICATION NUMBER: GB 0325007.3
 28 <151> PRIOR FILING DATE: 2003-10-27
 30 <160> NUMBER OF SEQ ID NOS: 9
 33 <170> SOFTWARE: PatentIn version 3.1
 36 <210> SEQ ID NO: 1
 37 <211> LENGTH: 119
 38 <212> TYPE: PRT
 39 <213> ORGANISM: Mus sp.
 42 <400> SEQUENCE: 1
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 45 1 5 10 15
 48 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Ser Pro
 49 20 25 30
 52 Ser Thr Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
 53 35 40 45
 56 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
 57 50 55 60
 60 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
 61 65 70 75 80
 64 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
 65 85 90 95
 68 Leu Pro Ile Gln Thr Ala Glu Leu Thr Pro Glu Leu Val Ile Ser Lys
 69 100 105 110
 72 Asp Lys Arg Ser Phe Cys His
 73 115
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 77 <211> LENGTH: 119
 78 <212> TYPE: PRT
 79 <213> ORGANISM: Rattus sp.
 82 <400> SEQUENCE: 2
 84 Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys

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 PATENT APPLICATION: US/10/576,358

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Input Set : A:\PTO.KD.txt
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85 1      5          10          15
88 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Ser Pro
89           20         25          30
92 Ser Ala Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
93           35         40          45
96 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
97           50         55          60
100 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
101 65           70         75          80
104 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
105           85         90          95
108 Leu Pro Ile Gln Thr Ala Glu Leu Thr Pro Glu Leu Val Ile Ser Lys
109           100        105         110
112 Asp Lys Arg Ser Phe Cys His
113           115
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118 <211> LENGTH: 119
119 <212> TYPE: PRT
120 <213> ORGANISM: Canis sp.
123 <400> SEQUENCE: 3
125 Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys
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129 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Gly Pro
130           20         25          30
133 Ala Ala Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
134           35         40          45
137 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
138           50         55          60
141 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
142 65           70         75          80
145 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
146           85         90          95
149 Leu Pro Ile Gln Thr Ala Glu Leu Ala Pro Glu Leu Val Ile Ser Asn
150           100        105         110
153 Asp Lys Arg Ser Phe Cys His
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157 <210> SEQ ID NO: 4
158 <211> LENGTH: 119
159 <212> TYPE: PRT
160 <213> ORGANISM: Homo sapiens
163 <400> SEQUENCE: 4
165 Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys
166 1           5          10          15
169 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Gly Pro
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173 Ala Ala Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
174           35         40          45
177 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
178           50         55          60

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 PATENT APPLICATION: US/10/576,358

DATE: 05/01/2006
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Input Set : A:\PTO.KD.txt
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181 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
 182 65 70 75 80
 185 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
 186 85 90 95
 189 Leu Pro Ile Gln Thr Ala Glu Leu Ala Pro Glu Leu Val Ile Ser Asn
 190 100 105 110
 193 Asp Lys Arg Ser Phe Cys His
 194 115
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 198 <211> LENGTH: 11
 199 <212> TYPE: PRT
 200 <213> ORGANISM: Human immunodeficiency virus
 203 <400> SEQUENCE: 5
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 210 <211> LENGTH: 16
 211 <212> TYPE: PRT
 212 <213> ORGANISM: Antennapedia
 215 <400> SEQUENCE: 6
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 222 <211> LENGTH: 130
 223 <212> TYPE: PRT
 224 <213> ORGANISM: Artificial Sequence
 227 <220> FEATURE:
 229 <223> OTHER INFORMATION: synthetic
 231 <400> SEQUENCE: 7
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 234 1 5 10 15
 237 Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys Leu Ser Glu Arg Ser
 238 20 25 30
 241 Leu Ala Ile Ala Arg Gly Arg Gly Lys Gly Pro Ala Ala Glu Glu Pro
 242 35 40 45
 245 Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr Ser Arg Leu Arg Glu
 246 50 55 60
 249 Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu Ser Gln Val Glu Ile
 250 65 70 75 80
 253 Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu Gln Val Val Leu Ala
 254 85 90 95
 257 Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His Leu Pro Ile Gln Thr
 258 100 105 110
 261 Ala Glu Leu Ala Pro Glu Leu Val Ile Ser Asn Asp Lys Arg Ser Phe
 262 115 120 125
 265 Cys His
 266 130
 269 <210> SEQ ID NO: 8
 270 <211> LENGTH: 135

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/576,358

DATE: 05/01/2006
TIME: 12:15:15

Input Set : A:\PTO.KD.txt
Output Set: N:\CRF4\05012006\J576358.raw

271 <212> TYPE: PRT
 272 <213> ORGANISM: Artificial Sequence
 275 <220> FEATURE:
 277 <223> OTHER INFORMATION: synthetic
 279 <400> SEQUENCE: 8
 281 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
 282 1 5 10 15
 285 Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys
 286 20 25 30
 289 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Gly Pro
 290 35 40 45
 293 Ala Ala Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
 294 50 55 60
 297 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
 298 65 70 75 80
 301 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
 302 85 90 95
 305 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
 306 100 105 110
 309 Leu Pro Ile Gln Thr Ala Glu Leu Ala Pro Glu Leu Val Ile Ser Asn
 310 115 120 125
 313 Asp Lys Arg Ser Phe Cys His
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 319 <212> TYPE: PRT
 320 <213> ORGANISM: Artificial sequence
 323 <220> FEATURE:
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 327 <400> SEQUENCE: 9
 329 Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys
 330 1 5 10 15
 333 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Ser Pro
 334 20 25 30
 337 Ser Thr Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
 338 35 40 45
 341 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
 342 50 55 60
 345 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
 346 65 70 75 80
 349 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
 350 85 90 95
 353 Leu Pro Ile Gln Thr Ala Glu Leu Thr Pro Glu Leu Val Ile Ser Lys
 354 100 105 110
 357 Asp Lys Arg Ser Phe Cys His Arg Gln Ile Lys Ile Trp Phe Gln Asn
 358 115 120 125
 361 Arg Arg Met Lys Trp Lys Lys
 362 130 135

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/576,358

DATE: 05/01/2006

TIME: 12:15:16

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\05012006\J576358.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application Number

Raw Sequence Listing before editing (for reference only)



IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/576,358

DATE: 04/28/2006
TIME: 09:57:36

Input Set : A:\PTO.KD.txt
Output Set: N:\CRF4\04282006\J576358.raw

5 <110> APPLICANT: Smith, Austin, Gerard
 6 Ying, Qi-Long
 7 Nichols, Jennifer
 10 <120> TITLE OF INVENTION: Improved Control Of ES Cell Self Renewal And Lineage Specification, And
 11 Medium Therefor
 14 <130> FILE REFERENCE: 09641.0011-00000
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 24 <150> PRIOR APPLICATION NUMBER: GB 0324378.9
 25 <151> PRIOR FILING DATE: 2003-10-17
 27 <150> PRIOR APPLICATION NUMBER: GB 0325007.3
 28 <151> PRIOR FILING DATE: 2003-10-27
 30 <160> NUMBER OF SEQ ID NOS: 9
 33 <170> SOFTWARE: PatentIn version 3.1

Does Not Comply
 Corrected Diskette Needed

(pg 2) ↗

ERRORED SEQUENCES

317 <210> SEQ ID NO: 9
 318 <211> LENGTH: 135
 319 <212> TYPE: PRT
 320 <213> ORGANISM: Artificial sequence
 323 <220> FEATURE:
 325 <223> OTHER INFORMATION: synthetic
 327 <400> SEQUENCE: 9
 329 Met Lys Ala Leu Ser Pro Val Arg Gly Cys Tyr Glu Ala Val Cys Cys
 330 1 5 10 15
 333 Leu Ser Glu Arg Ser Leu Ala Ile Ala Arg Gly Arg Gly Lys Ser Pro
 334 20 25 30
 337 Ser Thr Glu Glu Pro Leu Ser Leu Leu Asp Asp Met Asn His Cys Tyr
 338 35 40 45
 341 Ser Arg Leu Arg Glu Leu Val Pro Gly Val Pro Arg Gly Thr Gln Leu
 342 50 55 60
 345 Ser Gln Val Glu Ile Leu Gln Arg Val Ile Asp Tyr Ile Leu Asp Leu
 346 65 70 75 80
 349 Gln Val Val Leu Ala Glu Pro Ala Pro Gly Pro Pro Asp Gly Pro His
 350 85 90 95
 353 Leu Pro Ile Gln Thr Ala Glu Leu Thr Pro Glu Leu Val Ile Ser Lys
 354 100 105 110
 357 Asp Lys Arg Ser Phe Cys His Arg Gln Ile Lys Ile Trp Phe Gln Asn
 358 115 120 125

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/576,358

DATE: 04/28/2006

TIME: 09:57:36

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\04282006\J576358.raw

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362 130 135

E--> 371 1

① deleted

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/576,358

DATE: 04/28/2006
TIME: 09:57:37

Input Set : A:\PTO.KD.txt
Output Set: N:\CRF4\04282006\J576358.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application Number
L:371 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:9